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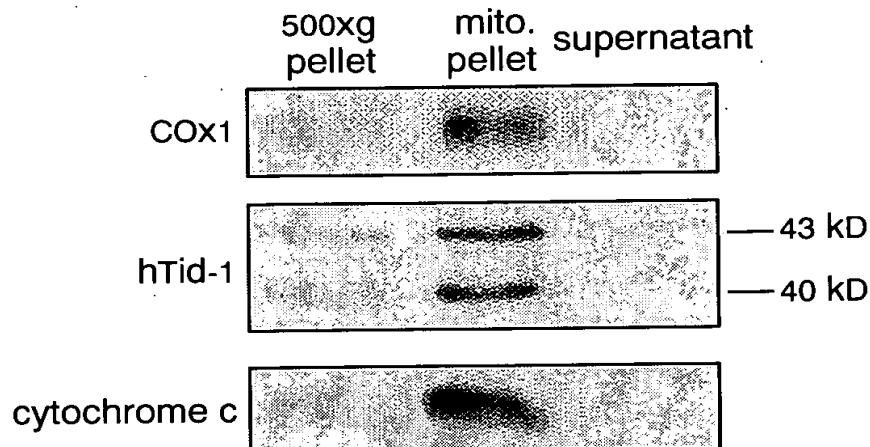
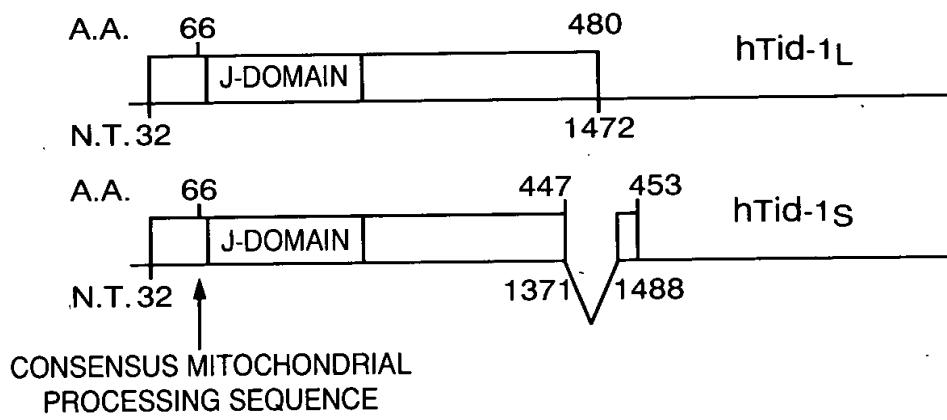


FIG. 1A



hTid-1L carboxyl terminus
SSGGSTMDSSAGSKARREAGEDEEGFLSKLKKMFTS

hTid-1S carboxyl terminus
SSGKRSTGN

FIG. 1B



FIG. 1C



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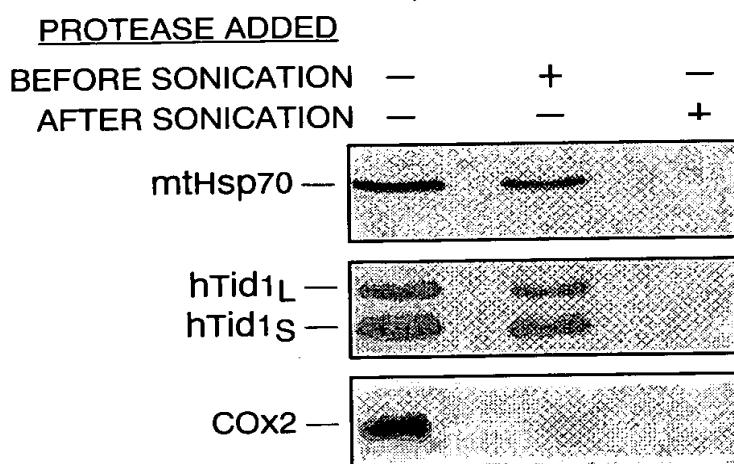


FIG. 2A

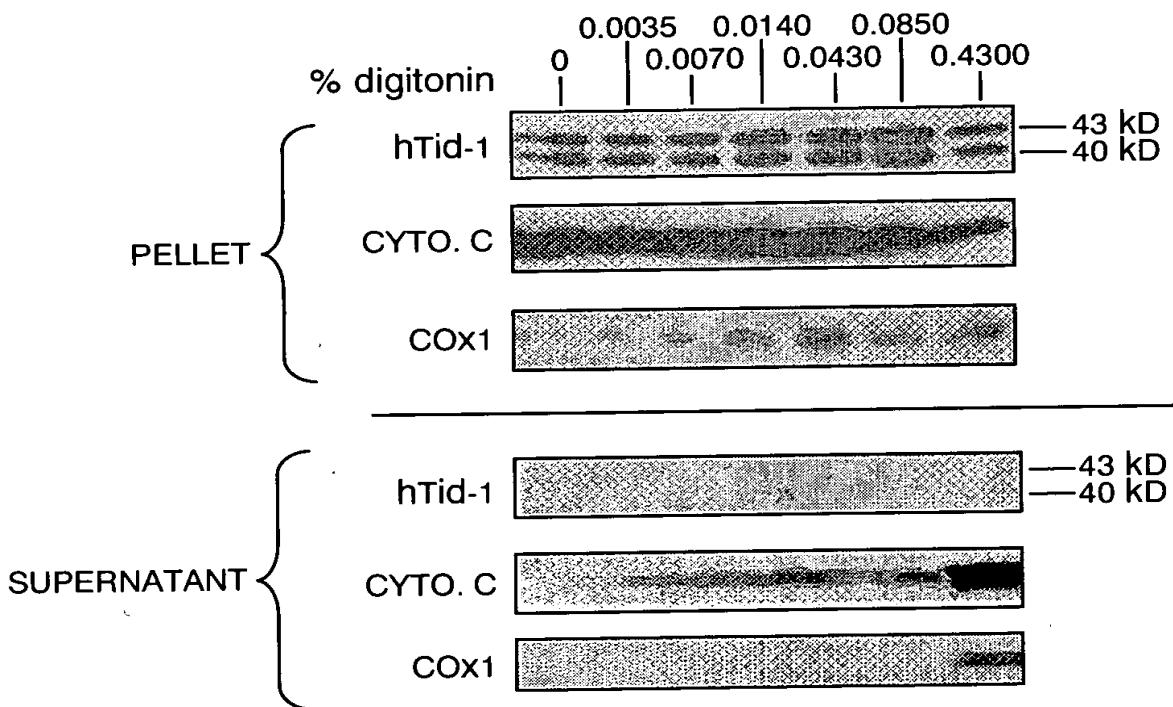


FIG. 2B



FIG. 2C



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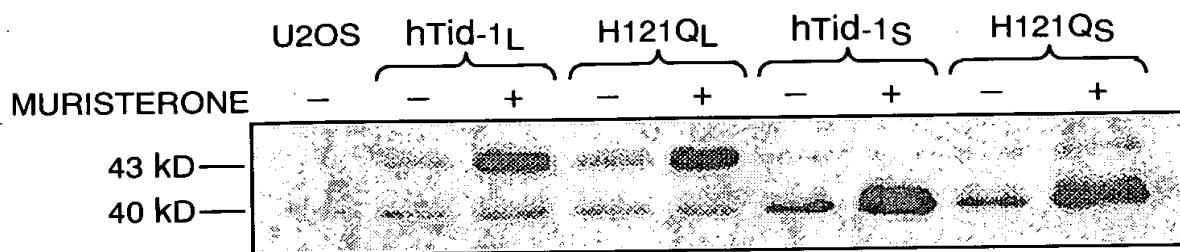


FIG. 3A

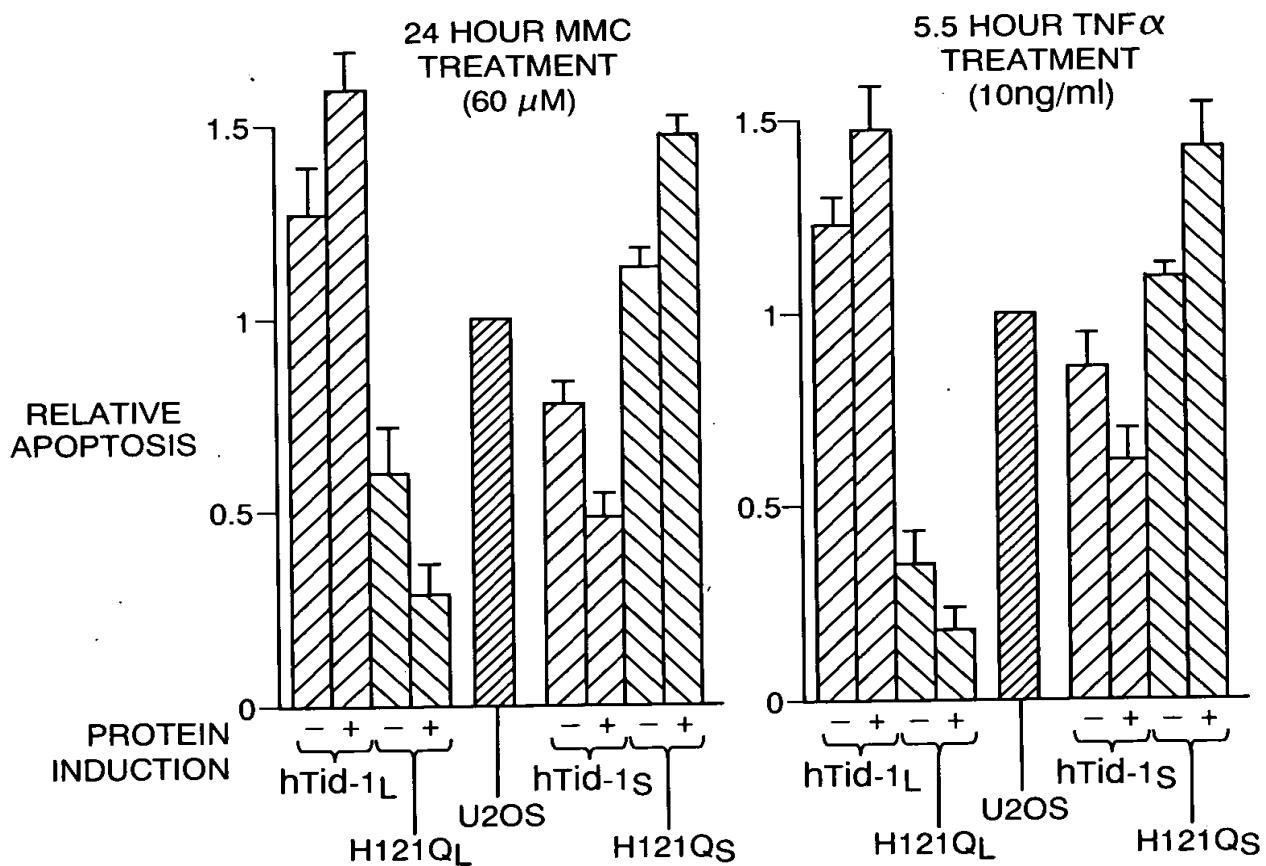
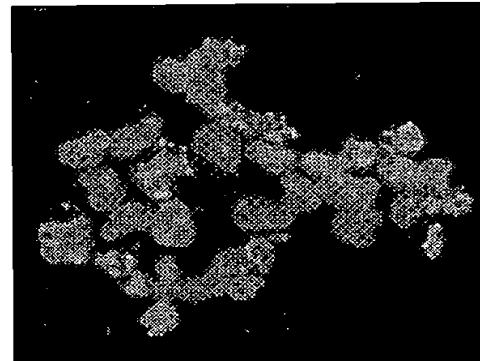


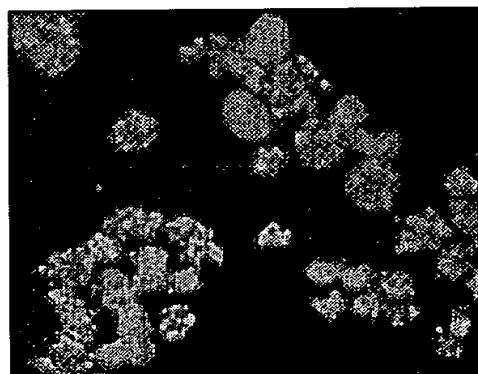
FIG. 3B



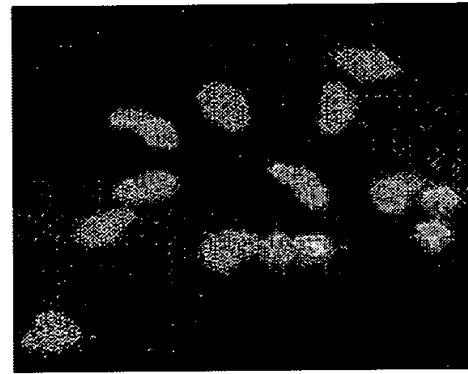
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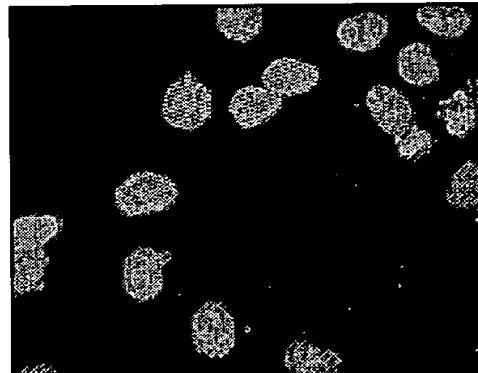
U2OS



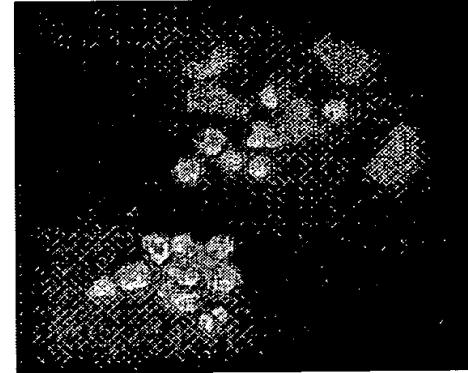
hTid-1L



hTid-1S



H121QL



H121QS

FIG. 3C



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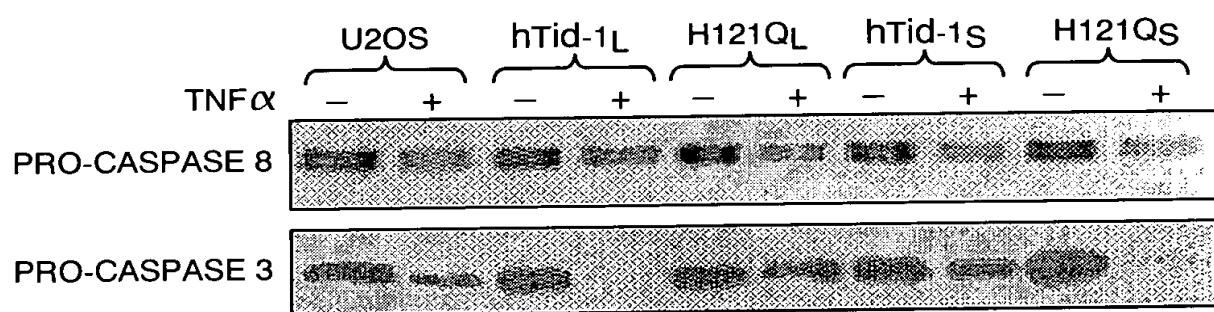


FIG. 4A



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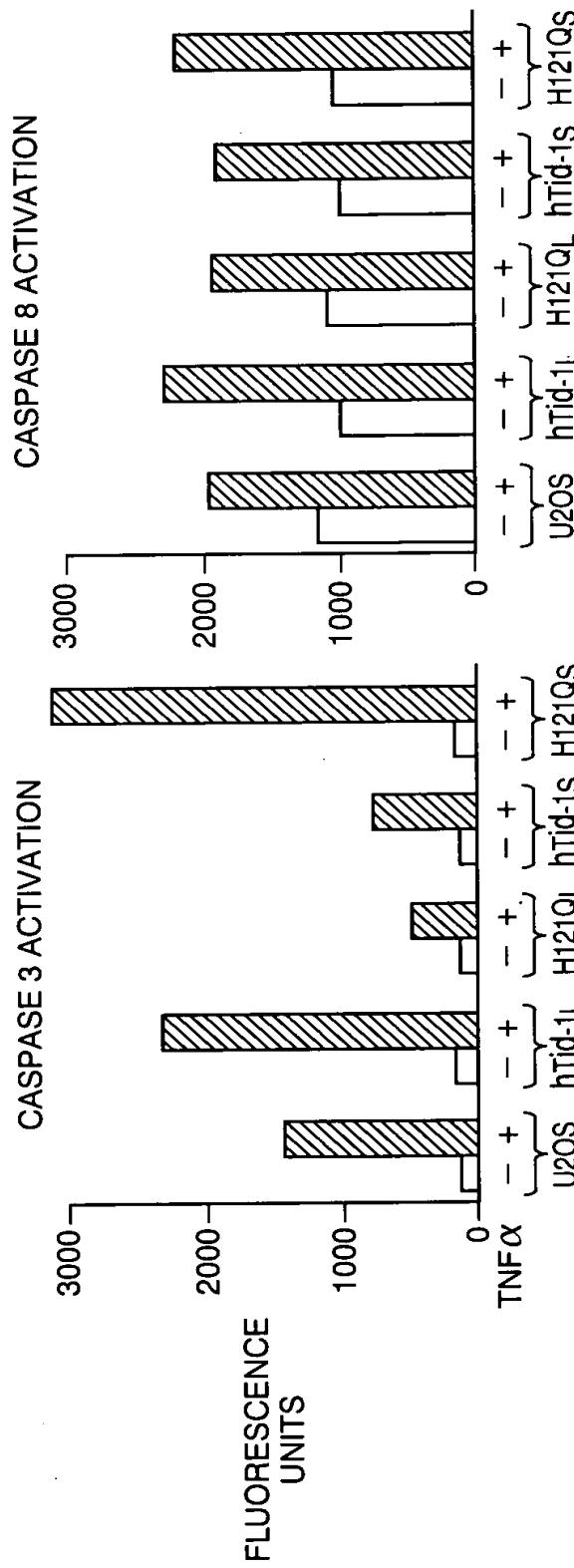


FIG. 4B



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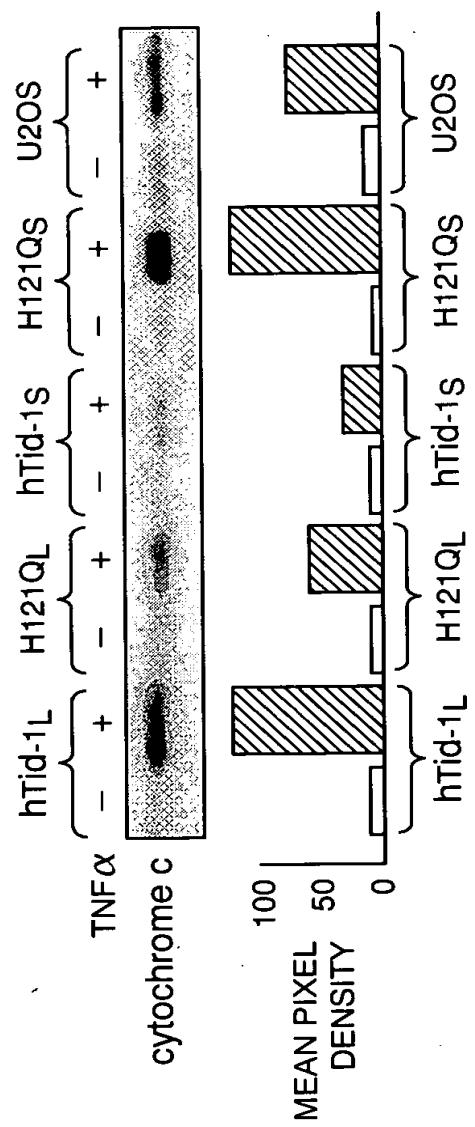


FIG. 4C



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Nucleotide sequence of coding sequence encoding hTid1L:

ATGgctgcgcgggtctccacacgctgggtctgggtggggacccgcggctccggctatatcggttagagggc
ccggccgcccagggaggggcgtggggcatggctgagcccaagctgagcgtccgccttgcgtctccctgacct
cttgcggcccccgagcqctgtacattgagacctgggtcagcattacaggaacaaaacataacccttcattgtact
gcctccttccacacgagtgccttggccaaagaagattattatcagatatttaggagtgcctcgaaatgccagccagaa
agagatcaagaaagcctattatcagcttgccttgccttgcacacaaaataaggatgtcccaaagccaaggaga
agttctccagctggcagaagcctatgagggtttgagtgtatgaggtgaagaggaagcagtacgatgcctacggctctgca
ggcttcgatcctggggccagcggctccagcatagctacttggaaagggaggcccactgtggaccccggaggactttcag
gaagatcttggcagttctcatcctcttgccttgccttgccttgccttgccttgccttgccttgccttgccttgccttgccttgc
agttgacattcaatcaagctgcaaagggggtcaacaaggagttcaccgtgaacatcatggacacgtgtagcgcgtcaac
ggcaaggggAACGAGCCGGACCAAGGTGAGCATTGCCACTACTGTGGCGGCTCCGGCATGGAAACCATCAACACAGG
CCCTTTGTGATGCGTCCACGTGTTAGGAGATGTGGTGGCCGGCTCCATCATCATATGCCCTGTGTGGTCTGCAGGG
GAGCAGGACAAGCCAAGCAGAAAAAGCGAGTGTGATCCCTGTGCCCTGAGGAGTCAGGATGCCAGACCGTAGGATG
CCTGTGGAAAAGGGAAATTCTTACGTTCAGGGTGCAGAAAAGCCCTGTGTTCCGGAGGGACGGCGCAGACATCCA
CTCCGACCTCTTATTCTATAGCTCAGGCTTCTGGGGAAACAGCCAGAGCCAGGGCCTGTACGAGACGATCAACG
TGACGATCCCCCTGGACTCAGACAGACCAGAAGATTGGATGGGGAAAGGCATCCCCCGGATTAACAGCTACGGC
TACGGAGACCACATCCACATCAAGATACTGAGGTCCAAGAGGGCTAACCGAGCCGGCAGCAGAGCCTGATCCTGAGCTA
CGCCGAGGACGAGACAGATGTGGAGGGACGGTGAACGGCGTCACCCTCACAGCTGTGGCAGCACCAGGATG
CCGAGGAAGCAAGGCTAGGCGTGGGTGGGGAGGGACGGAGGAGGATTCCCAAACCTAAGAAAATGTTACCTCA
TGA

Nucleotide sequence of coding sequence encoding hTid1S:

atggctgcGcggtgtccacacgctggtgctggggatggggccggctccggctatcggttagaggggc
ccggccgcccagggaggggcggtggtgaaaaatggctgagcccaagctgagcgtccccgccttgcgtctccctgaccc
cttgcggcccccgagcgctgtgacattgagacctgggtgcggcttacaggaacaaaacataacccttcattgtact
gcctcctccacacgagtgcggccattggccaaagaagattattatcagatatttaggagtgcctcgaaatgccagccagaa
agagatcaagaaagcctattatcagcttgccaaagaagtatcaccctgacacaaaataaggatgtcccaaagccaaggaga
agttctccagctggcagaagcctatgagggtttgagtgtgatgaggtgaagaggaaggcagtgatgcctacggctctgca
ggcttcgatcctggggccagcggctcccgatcgtactggaaaggaggccccactgtggaccccgaggagctttcag
gaagatcttggcgagttctcatccttcattggagattccagaccgtgttgcgtcagcctcaggaatacttcatgg
agttgacattcaatcaagctgcaaagggggtcaacaaggagttcaccgtgaacatcatggacacgtgtgagcgtgcac
ggcaaggggaaacgagccggaccaaggtgcagcattccactactgtggcggctccggcatggaaaccatcaacacagg
ccctttgtgatgcgttccacgtgttaggagatgtggtgccggctccatcatcatatcgccctgtgtggctgcaggg
gagcaggacaagccaagcagaaaaagcagtgatgtccctgtgcctgcaggagtcgaggatggccagaccgtgaggatg
cctgtggaaaaaggaaatttcattacgttcaaggtgcagaaaagccctgtgtccggaggacggcgcagacatcca
ctccgaccttttattctatagctcaggcttctggggaaacagccagagccaggccctgtacgagacatcaacg
tgacgatccccctggactcagacagaccagaagattcgatggtgaaaaggcatccccggattaacagctacggc
tacggagaccactacatccacatcaagatcagatccaaagaggctaacgagccggcagcagacgtcgttgg
cgccgaggacgagacagatgtggagggacggtaacggcgtcaccctcaccagctctggAAAAAGATCCACTGGAAACT
AG

FIG. 5



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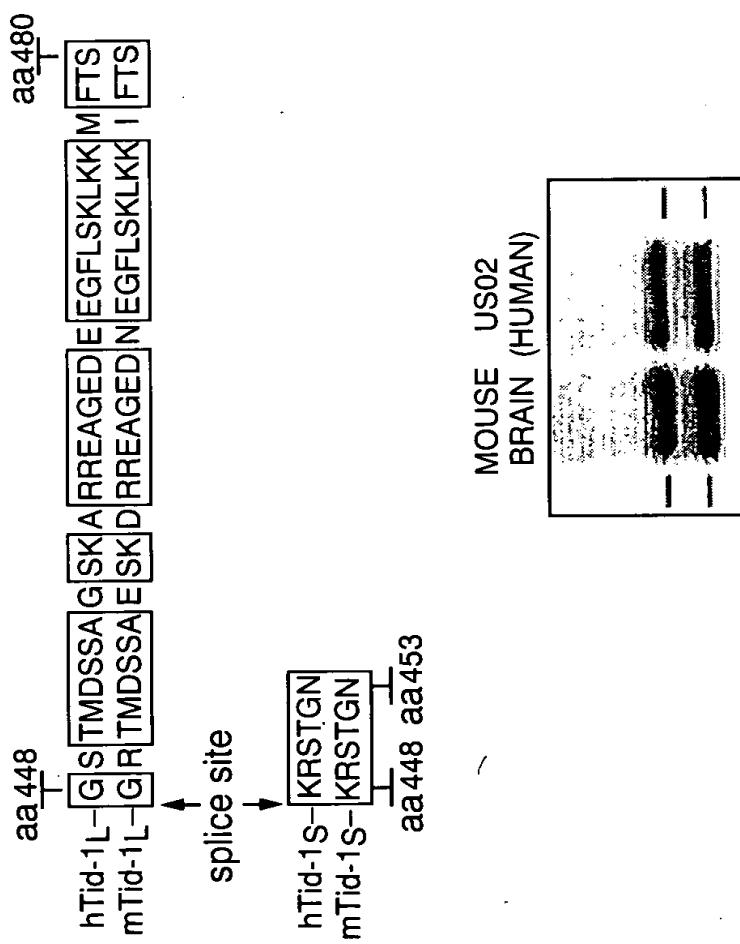


FIG. 6



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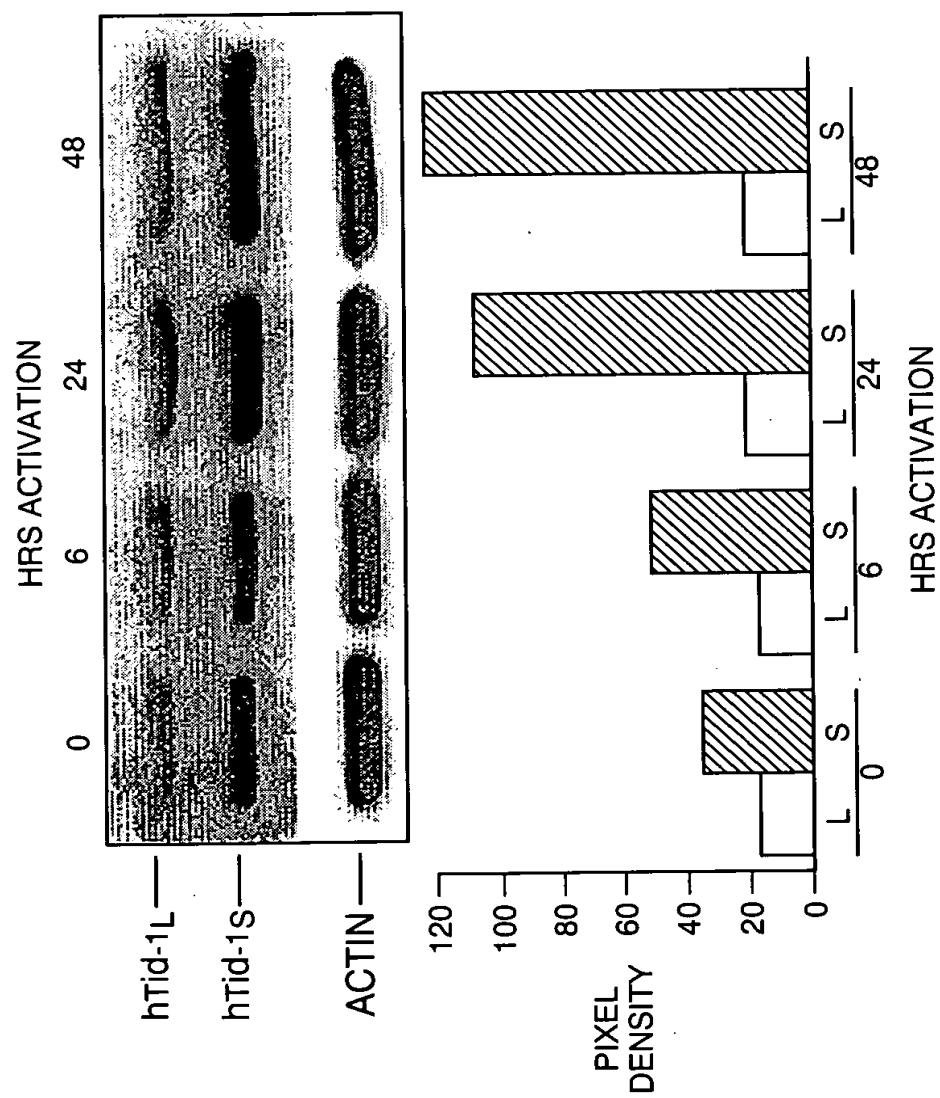


FIG. 7A



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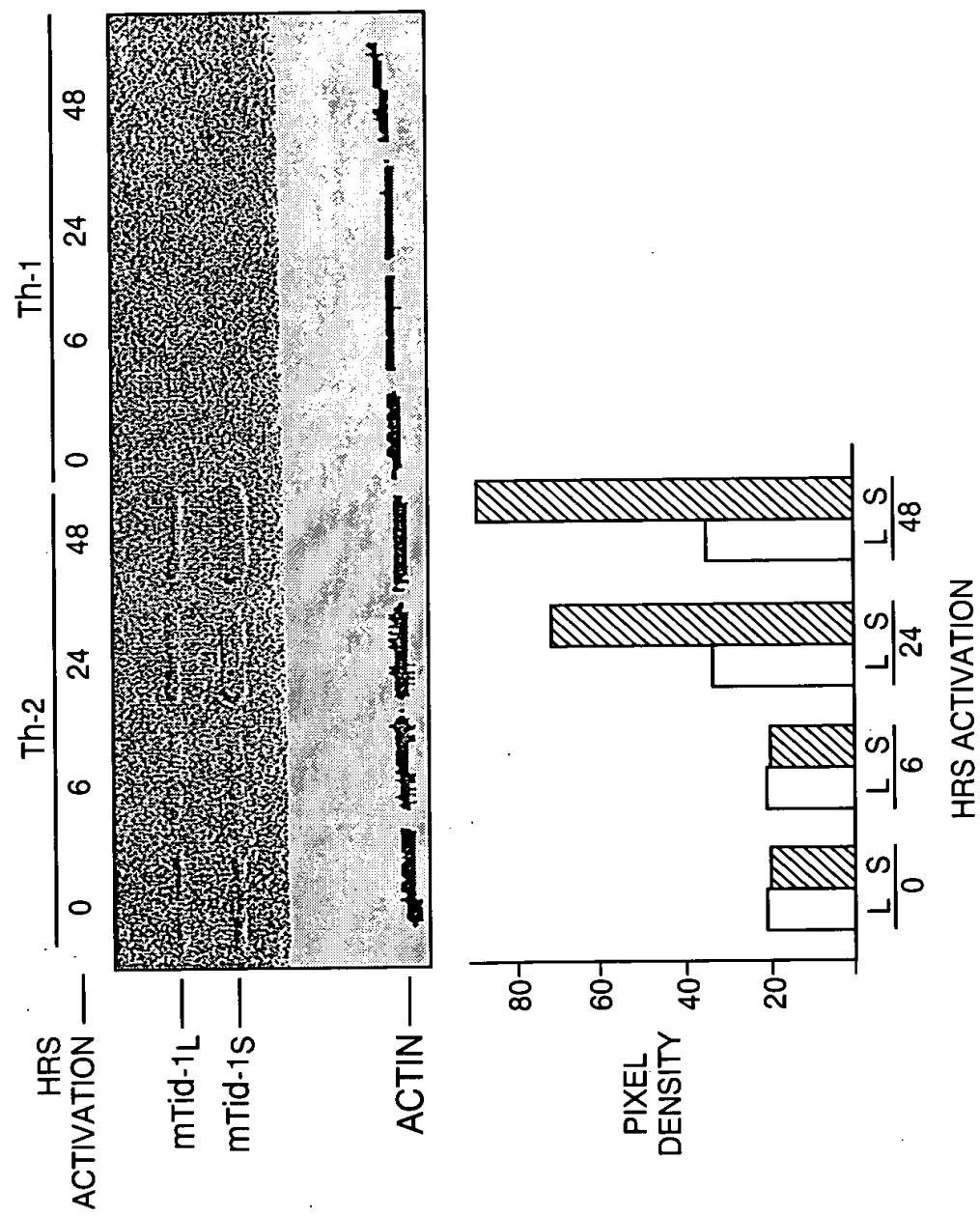


FIG. 7B



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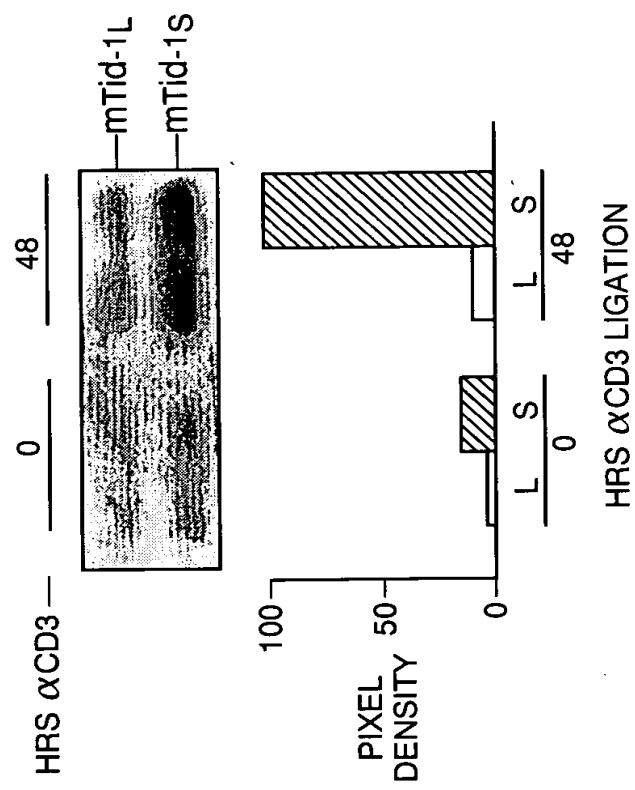


FIG. 7C



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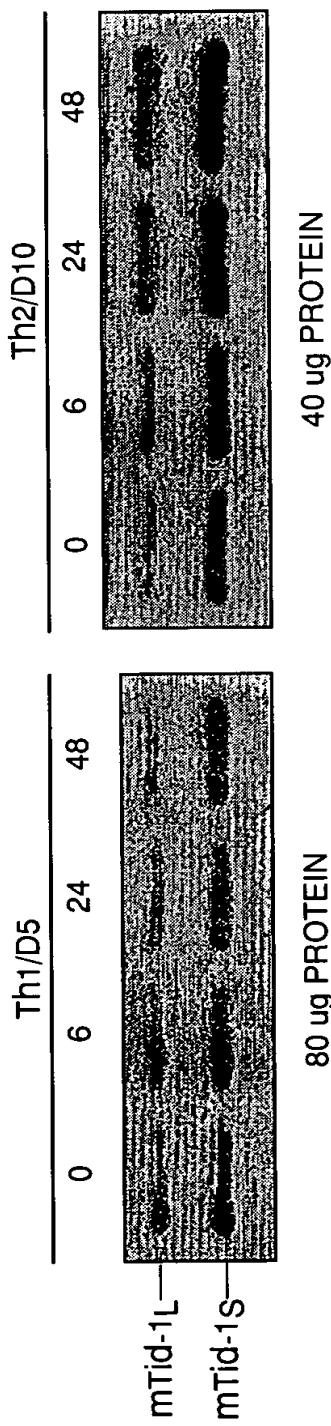


FIG. 7D



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DO.10.11 PRIMARY Th2 CELLS
CONTROL & CD3

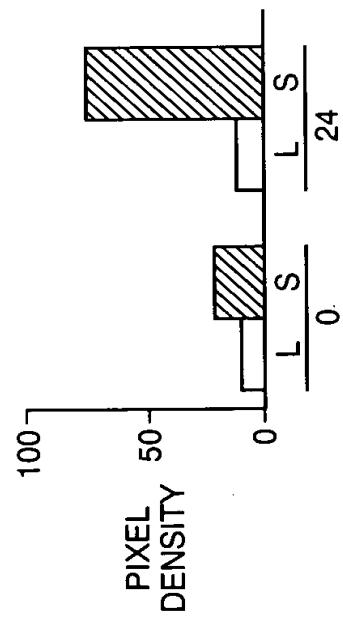
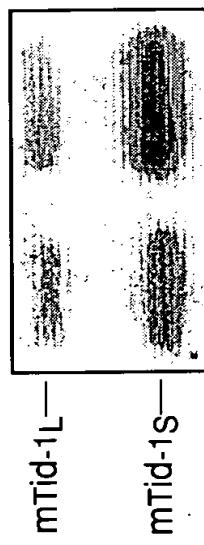


FIG. 7E



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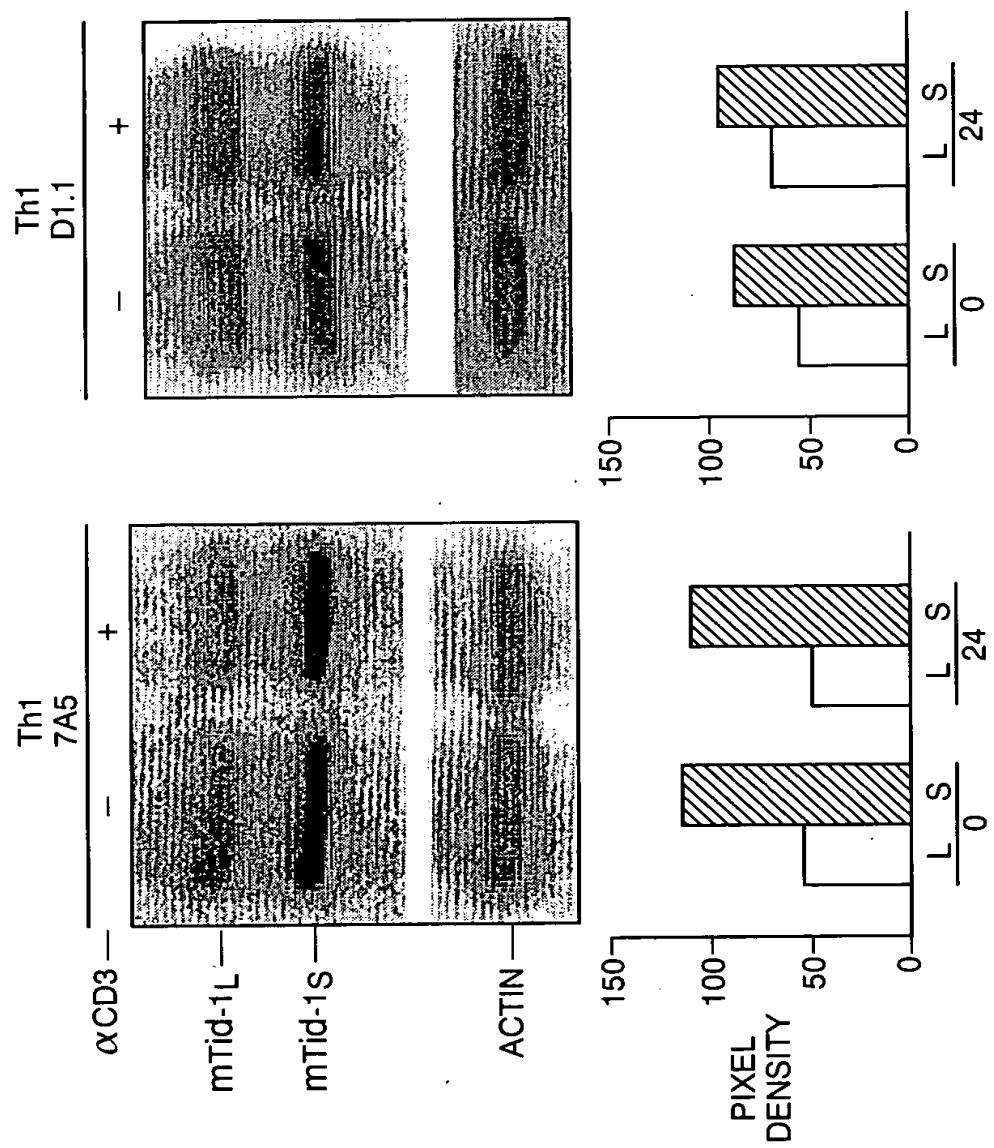


FIG. 7F1

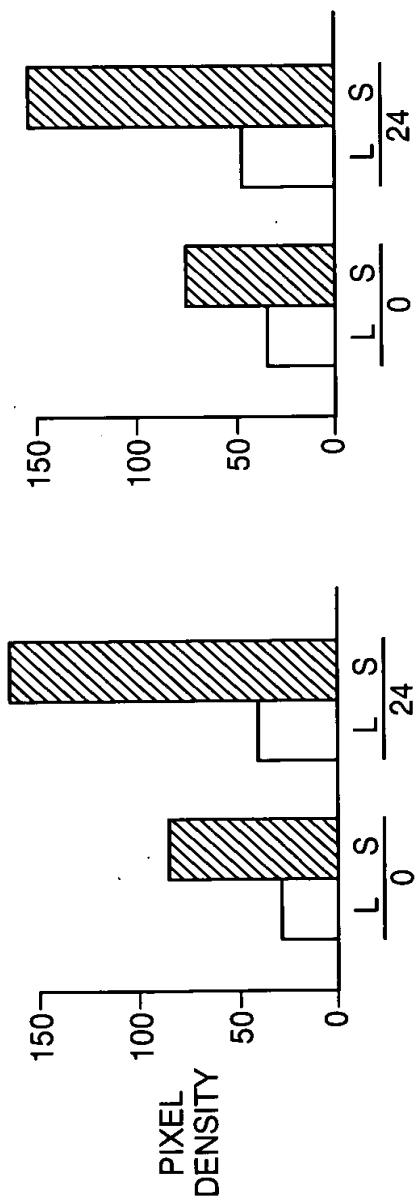
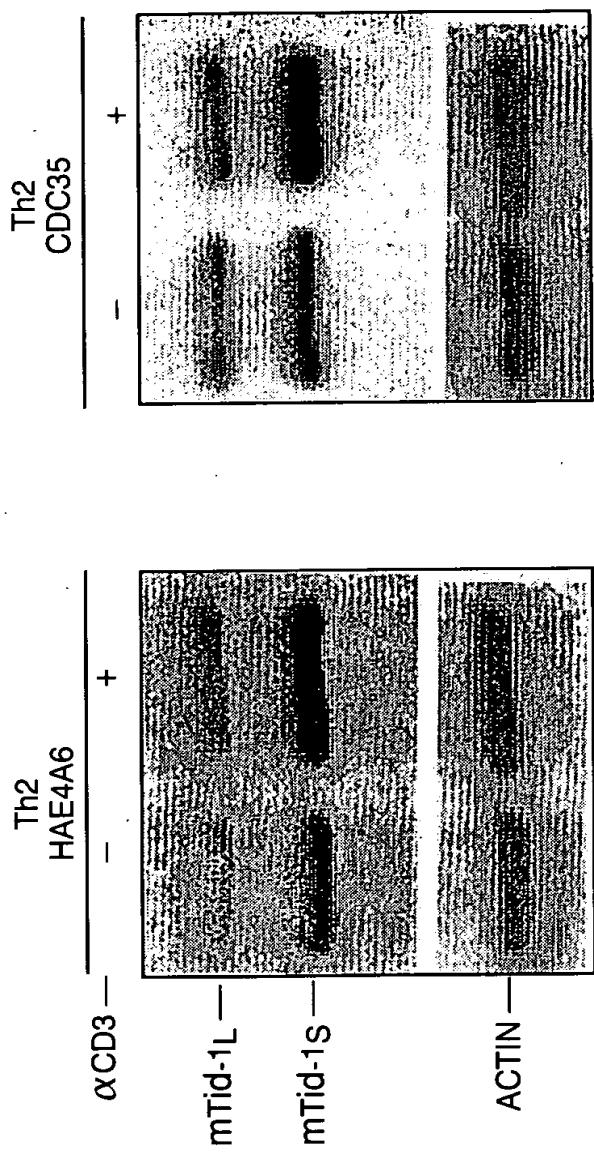
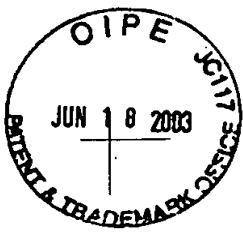


FIG. 7F2



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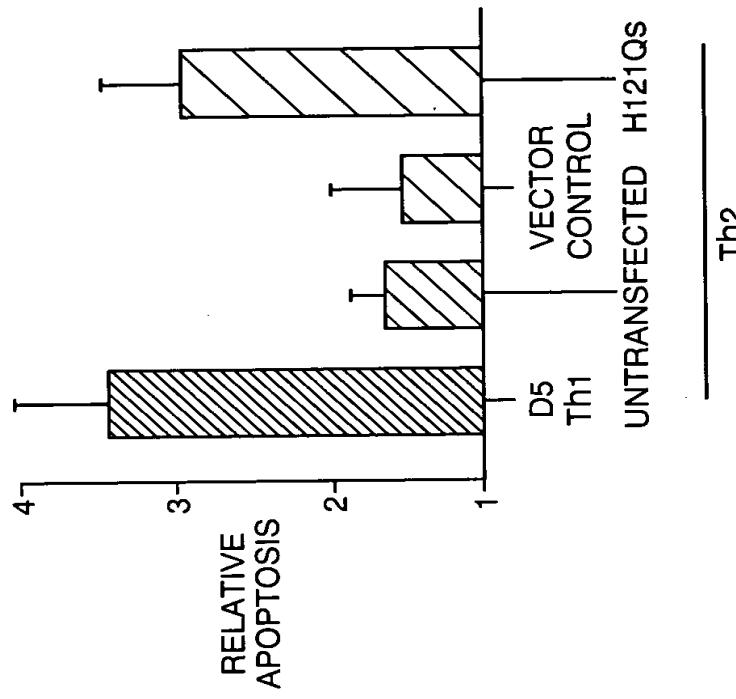
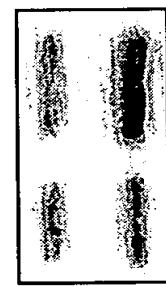


FIG. 8B



Control H121QS
mTid-1L —
mTid-1S —

FIG. 8A



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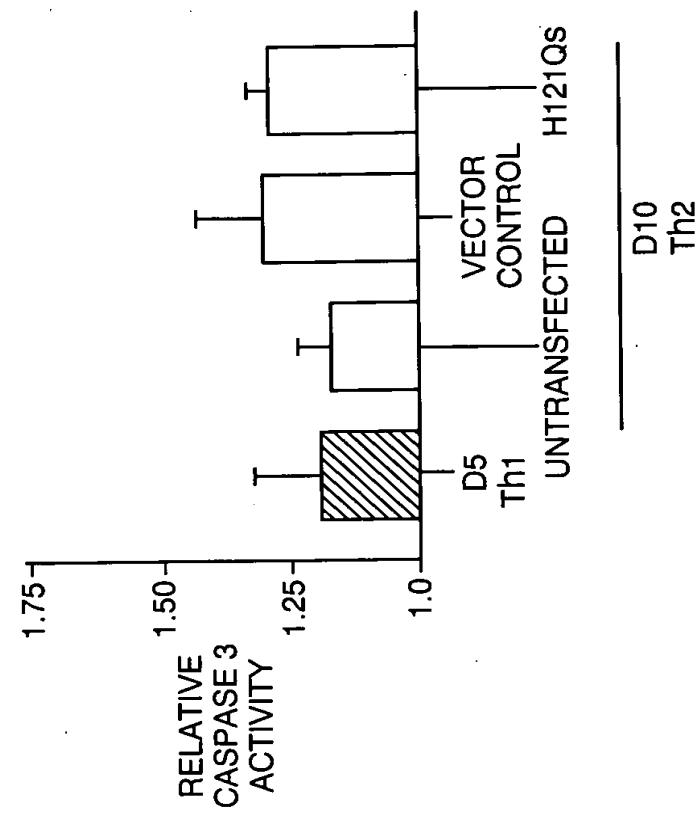
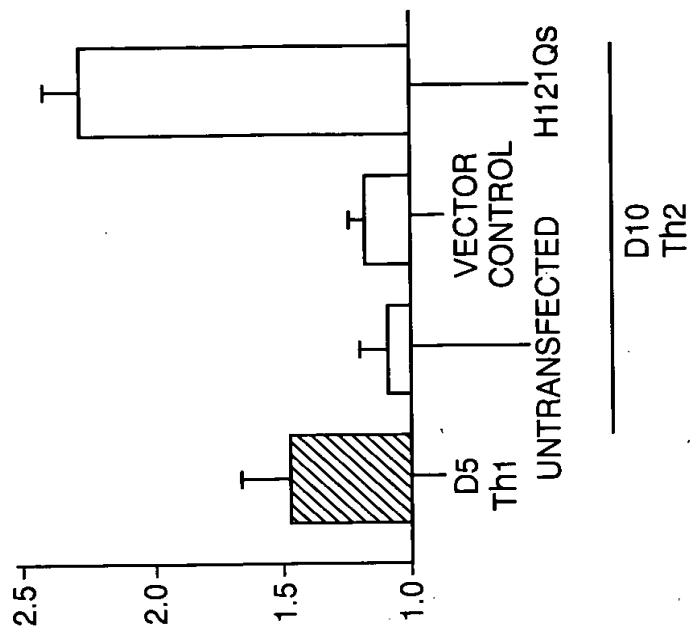


FIG. 9



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Amino acid sequence of mTid-1L:

MAAWCSPRWLRVAVGTPRLPAAAGRGVQQPQGGVVATSLCRKLCVSAFGLSMG
AHGPRALLTLRPGVRLTGTKSFPVCTTSFHTSASLAKDDYYQILGVPRNASQKDI
KKAYYQLAKKYHPDTNKDDPKAKEKFSQLAEAYEVLSDEVKRKQYDAYGSAGF
DPGTSSSGQGYWRGGPSVDPEELFRKIFGEFSSSPFGDFQNVVXXXXXXXXXXXX
XXXXXXXXKEFTVNIMDTCERCDGKGNEPGTKVQHCHYCGGSGMETINTGPFVMR
STCRRCCGRGSIITNPCVVCRGAGQAKQKKRVTIPVPAGVEDGQTVRMPVGKREIF
VTFRVQKSPVFRRTCA DIHSDLFISIAQAILGGTAKAQGLYETINV TIPAGIQT DQKI
RLTGKGIPRINSYGYGDHYIHIKIRVPKRLSSRQNLILSYAEDETDVEGTVNGVTH
TSTGGRTMDSSAESKDRREAGEDNEGFLSKLKKIFTS

Amino acid sequence of mTid-1S:

MAAWCSPRWLRVAVGTPRLPAAAGRGVQQPQGGVVATSLCRKLCVSAFGLSMG
AHGPRALLTLRPGVRLTGTKSFPVCTTSFHTSASLAKDDYYQILGVPRNASQKDI
KKAYYQLAKKYHPDTNKDDPKAKEKFSQLAEAYEVLSDEVKRKQYDAYGSAGF
DPGTSSSGQGYWRGGPSVDPEELFRKIFGEFSSSPFGDFQNVVXXXXXXXXXXXX
XXXXXXXXKEFTVNIMDTCERCDGKGNEPGTKVQHCHYCGGSGMETINTGPFVMR
STCRRCCGRGSIITNPCVVCRGAGQAKQKKRVTIPVPAGVEDGQTVRMPVGKREIF
VTFRVQKSPVFRRTCA DIHSDLFISIAQAILGGTAKAQGLYETINV TIPAGIQT DQKI
RLTGKGIPRINSYGYGDHYIHIKIRVPKRLSSRQNLILSYAEDETDVEGTVNGVTH
TSTGKRSTGN

FIG. 10



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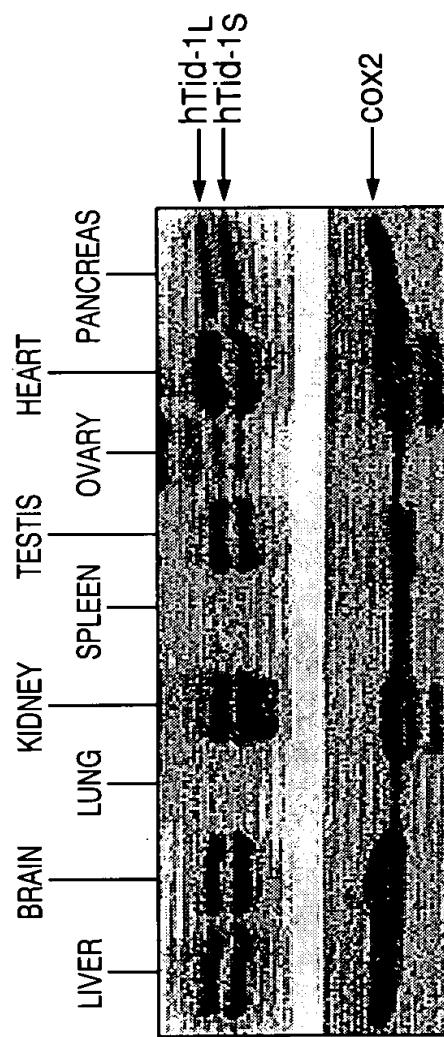


FIG. 11